

KEY TO THE GROUPS AND SUBGROUPS.

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| 1. Peduncle short; bracts usually embracing or partly embracing the receptacle | EUARGYRODERMA |
| 2. Plants 4—6-leaved | PLURIFOLIATA |
| 2. Plants 2-leaved | BIFOLIATA |
| 3. Plants composed of one body (i.e. the annual growth comprising one branch) | SINGULA |
| 4. Petals rose or very rarely white | ROSEA |
| 4. Petals yellow | LUTEA |
| 3. Plants with age composed of more than one body (i.e. annual growth comprising two branches) | PLURIMA |
| 5. Petals rose | ROSEA |
| 5. Petals yellow | LUTEA |
| 1. Peduncle elongated; bracts not embracing the receptacle | ROODIA |

Argyroderma latifolium L. Bol. sp. nov. (*Euargyroderma*—*Bifoliata*—*Singula*—*Rosea*).—Ad *A. planum* affine, sed divergio foliorum minus, carina minus conspicua, sepalis angustioribus, petalis angustioribus inferneque magis attenuatis, saturate roseis, et filamentis brevioribus differt.

Plantae floriferae 23 visae, pallide glauce virides, 3·5—4·5 cm. diam.; folia ascendentia, ad per 1·4 cm. divergentia, pagina superiore transverse elliptica, supra medium convexula, pustula subnulla, 1·6—2 cm. longa cum vagina ad 1·4 cm. longa, 3·2—3·7 cm. lata, apice fere semicirculari, ad 2 cm. diam., late rotunde in dorsum transeunte; pedunculi 3—6 mm. longi; bractee compressae, inferne acute, superne obtuse, carinatae, lat. visae oblique rotundae vel subtruncatae, dimidium receptaculi vel ultra attingentes, 1·5—2 cm. longae cum vagina 5—7 mm. longae; receptaculum subcompressum, 1·5 et 1·1 cm. diam., 1 cm. longum cum tubo 6 mm. longo, altitudinem foliorum attingens; sepalia 6—7, omnia $\pm$ marginata, ad 4 mm. longa, basi 5—7 mm. lata; petala dense ca. 8-seriata, 4, 5, 6, 8, 9, 10, 12, 15 mm., vel in flore maximo ad 17 mm., longa, ad 1·25 mm. lata, e parum supra medium inferne angustata, basi ad 0·5 mm. lata, obtusa vel subtruncata, rarius emarginata, pulchre rosea; filamenta saepius ad 2 mm. longa, exteriora erecta, interiora deflexa dimidiumque tubi receptaculi rarius fere attingentia, alba, antheris pollineque albidis; discus denticulatus; pulvinus stigmatiferus ad 3 mm. diam., vix elevatus.

Cape Province: in dit. Vanrhynsdorp; "12 miles N. of Sout Rivier", Maio 1964, *H. Hall* 2751. N. B. G. 230/64. Fl. Jun. 1964.

Argyroderma rooipanense L. Bol. sp. nov. (*Euargyroderma*—*Bifoliata*—*Singula*—*Rosea*).—Plantae 2 visae; folia ascendentia, per 1·6 cm. et 2·1 cm. divergentia, pagina superiore fere ovale, 2·2 cm. longa, 2·4 cm. lata, vel subrhomboideum, apice fere rotundo, 2·2 cm. longa, medio 2·9 cm. lato, vaginis 1·3—1·4 cm. longis, pustula inconspicua, apice truncato, obscure carinato, 1 cm. et 1·2 cm. diam., rotunde in dorsum rotundatum transeunte, basi 4—7 mm. diam.; pedunculi teretes, ad 4 mm. longi; bractee inter maximas in genere, 2—2·4 cm. longae cum vagina 1·2 cm. longa, lat. visae rotunde

truncatae, ad 1 cm. diam.; receptaculum apud apicem ovarii discumque leviter constrictum, 1·4 et 1·7 cm. longum cum tubo 4 mm. et 6 mm. longo, apice ad 1·2 cm. diam.; sepala 6, omnia $\pm$ marginata, obtusa, 5—6 mm. et 6—7 mm. longa, basi 5—7 mm. et 6—8 mm. lata; petala exteriora sat laxa, ca. 3-seriata, saepe e infra medium inferne angustata, truncata, obscure emarginata, saturate purpureo rubra, ad 1·6 cm. et 1·8 cm. longa, ad 1·75 mm. et 2 mm., basi ad 1 mm., lata, interiora perpauca, 3—6 mm. longa, ad 0·75 mm. lata; stamina exteriora patentia vel ascendentia, interiora deflexa, basim tubi attingentia, filamentis albis, 2—5 mm. longis, antheris pollineque pallidissime citrinis; discus profunde crenulatus; pulvinus stigmatiferus 3 mm. diam.

Cape Province: in dit. Vanrhynsdorp; "on the farm 'Rooipan' at the eastern edge of the Knersvlakte, in decomposed slate", *P. A. B. van Breda* 1898/63. Fl. Veld Reserve, Worcester, Jun. 1964. "Out of about 50 plants I have only 1 with 2 bodies." (*van Breda*).

Argyroderma boreale L. Bol. sp. nov. (*Euargyroderma*—*Bifoliata*—*Plurima*—*Rosea*).—Plantae 2 visae; folia per 1·5 cm. divergentia, ascendentia, pagina superiore oblique ovale ob latus alterum quasi digito impressum, pustula obscura, parum infra medium laminae attingente, 2·7 cm. longa cum vagina 9 et 10 mm. longa, basi laminae 2 cm. lata, apice plano vel convexulo, in dorsum rotunde transeunte, ad 1·4 cm., prope basim 4 mm., diam., carina inconspicua obtusa obliquissima; pedunculi teretes, ad 7 mm. longi; bractae dimidium tubi receptaculi attingentes, apice oblique truncato, in dorsum rotunde transeunte, 1·7 cm. longae cum vagina 6 mm. longa; receptaculum in siccis brunneum, rubre glanduliferum, ad 1·2 cm. longum cum tubo 4—5 mm. longo, ad 1·2 cm. diam., apice ovarii 9 mm. diam.; sepala 6, inter minima in genere, 3—4 mm. longa, basi ad 5 mm. lata, omnia $\pm$ marginata, apice interiorum breviter subulato; petala ca. 6-seriata, sat laxa, e prope medium inferne angustata, apice saepius truncato obscureque emarginato vel rarius obtuso, exteriora 8—13 mm. longa, ad 1·25 mm. lata, interiora pauca, ad 5 mm. longa, ad 0·5 mm. lata; stamina exteriora erecta vel patentia, interiora inflexa, ovarium vix attingentibus, filamentis albis, antheris pollineque stramineis; discus conspicuus, profunde divisus; pulvinus stigmatiferus vix 1·25 mm. diam.

Cape Province: in dit. Vanrhynsdorp, "10 miles N.E. of Bitterfontein, May 1960, *R. C. Littlewood*. Fl. Jun. 1960. Karoo Garden 269/60.

NOTE.—The type specimens of all new species described in this paper are in the Bolus Herbarium, University of Cape Town.

(*To be continued*)

PROTEA GRANDICEPS: ITS HISTORY AND IDENTITY

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(With Plates XVII and XVIII)

ABSTRACT

Part of the 1805 edition of Trattinnick's *Thesaurus Botanicus* has been traced in Vienna. This discovery has confirmed that the name *Protea grandiceps* is correctly applied to a species known from the Cape Peninsula and other parts of the Cape Province.

Phillips and Stapf in their account of *Protea* in Dyer, *Flora Capensis*, V, i, 562 (1912) wrote that "No copy of the first (incomplete) issue of Trattinnick's *Thesaurus*, containing the name, description and figures of *P. grandiceps*, was accessible to us. But from the text to t. xii and the preface of the second edition, it is perfectly clear that plate xii was the same in both issues, whilst the name and the description were cancelled in the second owing to the identification of the plant with Andrews' t. 110, which had erroneously been referred to *P. speciosa*."

Efforts to trace the original description and figure by Trattinnick had for a long time been unsuccessful. According to information available in Vienna, which I visited in August 1964, Trattinnick had indeed published five parts of his *Thesaurus Botanicus* in 1805, containing plates 1 to 20 together with diagrams of the species. Apparently in 1805 all the 80 plates for the second edition which was printed in 1819 had been prepared but not published.

A thorough search in Vienna was made for the 1805 edition in the Natural History Museum, the National Library and at the Botanical Institute of the University but it was not to be found.

It had also been hinted that a copy might be in Leningrad. I visited the Library of the V. L. Komorov Botanical Institute of the U.S.S.R. Academy of Sciences in that city where only the second edition was traced.

In the 1819 edition of his *Thesaurus Botanicus*, published in Vienna, Trattinnick named the species *Protea speciosa* L. and stated that it was the same as his *P. grandiceps* of the first edition of that work: "Haec est *Pr. grandiceps* 1^{mae} ed. h.o. sine dubio non minus a praecedenti, quam etiam a *P. scabrida* Thunb. specie diversa."

LEOPOLDI TRATTINNICK

SOC. PHYS. GÖTT. SOD. HONOR.

THESAURUS BOTANICUS.

FASCICULUS III.

VIENNAE MDCCCV.

APUD CAROLUM SCHÄUMBURG ET SOC. BIBLIOPOLAS,
ET APUD EDITOREM.

Tab. XII.

PROTEA GRANDICEPS. Großköpfiger Silberbaum.

P. foliis ovatis, obtusis; flore terminali maximo, squamis calycinis ob-
ovatis purpureis apice pellitis.

P. (speciosa latifolia). Andrew. Bot. Rep. N. 36. Pl. 110.

Hanc plantam elegantia longe plurimis præferendam cell. Andrew
l. c. meram Proteæ speciosæ varietatem esse contendit et Synonimon Kaji,
quod apud ill. Willdenowium in Sp. pl. T. I. p. 531. ultimum est Proteæ
speciosæ, ad eandem singulariter referendum esse declarat. Quo jure?
discernant alii! Mihi profecto pro diversa penitus specie valet, nomine
notisque a reliquis Proteis distinguenda, nili legibus Theoriæ botanice
abolitis plurimas pariter Ranunculi, Aconiti, Pruni, Rosæ, Pelargonii,
Cariæ aliorumque plurimorum generum species ad unas duasve reducere
præplaceat. Cumque species hæc præfens dignam omnino Brownæ gran-
diceptis oppositionem referat, non minus etiam nomen triviale ab illa
derivandum existimavi.

Habitat in Promontorio bonæ spei Augusto florens. 2.

Ad latus conspiciuntur flosculus anticus et posticus, tum et pistil-
lum exsertum.

PLATE XVII

Protea grandiceps Tratt.

Title page of the 1805 Edition of Thesaurus Botanicus fasc. III by Trattinnick, and descrip-
tion of *Protea grandiceps*.

P. scabrida quoted by Trattinnick and of which I have seen a specimen in Thunberg's herbarium in Uppsala, Sweden is none other than *P. lepidocarpodendron* (L.) Linn. The name and description were published by Thunberg in Hoffm. Phytogr. Blätt. 14 (1803) and again in Nova Acta Acad. Scient. Imp. Petropol. XV, 465 (1806). It differs from *P. grandiceps* by having much narrower leaves and by the dense, black, velvety tomentum near the apices of the involucre bracts. In fact, it could be far more easily confused with *P. neriifolia* R.Br. or *P. laurifolia* Thunb. than with *P. grandiceps* Tratt. (See Rycroft: Journ. S. Af. Bot., XXIV, 201, 1958.)

P. speciosa (Linn.) L. and *P. grandiceps* Tratt. although also related, are obviously different. In the former, most of the involucre bracts are bearded, the leaves are elliptic to oblong-obovate and the styles are puberulous, whereas in the latter only the innermost bracts are bearded, the leaves are obovate, obtuse and with a broad base and the styles are glabrous.

That an earlier edition of Thesaurus Botanicus by Trattinnick was published is also indicated by reference to it by Dietrich and by Maser, both of whom used the name *P. grandiceps*. Dietrich in Bollst. Lex. Gart. und Botan. VII, 535 (1807) cites "Tratt. Thes. Bot. 3, t. 12" and Maser in Allg. Deutsch. Gart. Mag. IV, 137 t. 9 (1808) cites "Trattinnick, Thes. Botan. fasc. III, tab. 4." Trattinnick's tab. xii of 1819 is exactly the same as Maser's t. 9. The only doubt, therefore, was whether the figure in Trattinnick's first work was t. iv or t. xii.

Pritzel's Thesaur. Lit. Botan. gives the date of publication of Trattinnick's first edition as 1805.

Although other names had been applied before 1807 these were all occupied by various species and therefore cannot be applied in preference to *P. grandiceps* Tratt.

It must be stressed that Trattinnick's was not the first figure of this species because it is almost identical to t. 110 of Andrew Bot. Repos. (1800) where it was given the name of *P. speciosa latifolia*. Andrews stated that "in the year 1786 it was sent, in seeds, to the royal gardens, Kew, by Mr. F. Masson from the Cape of Good Hope; where certainly its beauty must be great."

Not only was it grown in England more than one and a half centuries ago but it was also cultivated on the Continent, for Maser (1808) wrote "Dieser Prachtflanze findet man bei Hr. Schneevogt in Haarlem, und bei Hr. Wendland in Herrenhausen unter dem namen, *Protea speciosa latifolia*."

Robert Brown published the name *P. coccinea* for this species in 1810 and later authors such as Poiret, Roemer and Schultes, Sprengel, Steudel, Meisner and Bolus upheld the name. "*P. coccinea*" appears in many herbaria on labels attached to specimens collected by Drege, Ecklon, Zeyher, Prior and Forster.



PLATE XVIII

Protea grandiceps Tratt.

Tab. xii of the 1805 Edition of Thesaurus Botanicus fasc. III by Trattinnick.
(By courtesy of Prof. K. H. Rechinger, Natural History Museum, Vienna.)